

CORE SUPPORT FOR AN F-LATTICE CORE OF A
BOILING WATER NUCLEAR REACTOR

ABSTRACT OF THE DISCLOSURE

A core plate assembly for a nuclear reactor includes a plurality of support beams, a flat plate positioned on top of the support beams, a plurality of control rod guide tube openings arranged in staggered rows, and a plurality of fuel supports extending through the flat plate. Each guide tube opening has a cruciform shape defines four fuel bundle receiving areas. Each fuel support includes a coolant flow inlet, and a coolant flow outlet sized to receive a lower tie plate of a fuel bundle. The coolant flow inlet is offset from coolant flow outlet so that a centerline of the coolant flow inlet is parallel to a centerline of the coolant flow outlet. The coolant flow inlets are positioned adjacent a support beam, and the coolant flow outlets are positioned in a fuel bundle receiving area.